

What is claimed is:

1. A semiconductor die coating, comprising a polymer that is fully curable by exposure to ultra violet light.
- 5 2. A semiconductor die coating according to Claim 1, wherein the polymer shrinks 10% or less by volume upon curing.
3. A semiconductor structure, comprising:
10 a semiconductor die;
a permanent protective coating on at least one surface of the die, the coating including a polymer resin and a photoactive compound.
4. A semiconductor structure according to Claim 3, wherein the polymer
15 resin shrinks 10% or less by volume upon curing.
5. A semiconductor structure according to Claim 3, wherein the polymer comprises a phenol-formaldehyde epoxy novolac resin.
- 20 6. A semiconductor structure according to Claim 3, wherein the photoactive compound is CD1011.
7. A semiconductor die coating, comprising a phenol-formaldehyde epoxy novolac resin and CD1011.
- 25 8. A semiconductor die coating, comprising approximately 44% by volume phenol-formaldehyde epoxy novolac resin and 1% by volume CD1011.

9. A process for forming a protective coating on a semiconductor die, which comprises:
- 5 applying a mixture of a phenol-formaldehyde epoxy novolac resin and
CD1011 to a portion of the die; and
 exposing the mixture to ultraviolet light.
10. A process for forming a protective coating on a semiconductor die, which comprises:
- 10 mixing a phenol-formaldehyde epoxy novolac resin and CD1011 in the
relative amounts of about 44% by volume resin and 1% by volume
CD1011 to form an epoxy resin composition
applying the composition to at least a portion of the die; and
exposing the mixture to ultraviolet light.
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11. A semiconductor die package, comprising:
- a semiconductor die;
conductive leads electrically connected to the die;
encapsulating material covering at least a portion of the die and at least a
20 portion of the leads, the encapsulating material comprising a polymer that
is fully curable by exposure to ultra violet light.
12. A semiconductor die package, comprising:
- a semiconductor die;
25 conductive leads electrically connected to the die;
encapsulating material covering at least a portion of the die and at least a
portion of the leads, the encapsulating material comprising a polymer
resin and a photoactive compound.

13. A semiconductor die package, comprising:
- a semiconductor die;
 - conductive leads electrically connected to the die;
 - 5 encapsulating material covering at least a portion of the die and at least a portion of the leads, the encapsulating material comprising a phenol-formaldehyde epoxy novolac resin and CD1011.